

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A feedback process for providing feedback for unrecognized speech comprising:
a speech input process for receiving a speech command as spoken by a user; and
an unrecognized speech comparison process, responsive to said speech input process, for comparing said user's speech command to a plurality of recognized speech commands available in a speech library according to acoustical scores that indicate a level of acoustical match between the user's speech command and the respective recognized speech commands to determine if said user's speech command is recognized speech corresponding to an acoustical score above a first threshold value, unrecognized speech corresponding to an acoustical score below the first threshold value and above a second threshold value, or non-speech corresponding to an acoustical score below the second threshold value; and
an unrecognized speech response process for generating a generic response which is provided to said user in response to said unrecognized speech comparison process determining that said user's speech command is unrecognized speech.
2. (Cancelled)
3. (Currently Amended) The feedback process of claim [[2]] 1 wherein said generic response is a visual response.

4. (Currently Amended) The feedback process of claim [[2]] 1 wherein said generic response is an audible response.

5. (Original) The feedback process of claim 1 wherein said unrecognized speech comparison process includes a user speech modeling process for performing an acoustical analysis of said user's speech command and generating a user speech acoustical model for said user's speech command.

6. (Original) The feedback process of claim 5 wherein said unrecognized speech comparison process further includes a recognized speech modeling process for performing an acoustical analysis of each of said plurality of recognized speech commands and generating a recognized speech acoustical model for each said recognized speech command, thus generating a plurality of recognized speech acoustical models.

7. (Previously Presented) The feedback process of claim 6 wherein said unrecognized speech comparison process further includes an acoustical model comparison process for comparing said user speech acoustical model to each of said recognized speech acoustical models, thus defining the plurality of acoustical scores which relate to said user's speech command, one said score for each said comparison performed.

8. (Previously Presented) The feedback process of claim 7 wherein said unrecognized speech comparison process further includes an unrecognized speech window process for determining the first and second threshold values defining an acceptable range of acoustical scores indicative of unrecognized speech, wherein said user's speech command is defined as unrecognized speech if the acoustical score, chosen from said plurality of acoustical scores, which indicates the highest level of acoustical match falls within said acceptable range of acoustical scores.

9. (Original) The feedback process of claim 7 wherein said plurality of recognized speech commands includes an unrecognized speech entry, said recognized speech modeling process further performs an acoustical analysis on said unrecognized speech entry to generate an unrecognized speech acoustical model for said unrecognized speech entry, and said acoustical model comparison process further compares said user speech acoustical model to said unrecognized speech acoustical model to define an unrecognized speech acoustical score; wherein said user's speech command is defined as unrecognized speech if said unrecognized speech acoustical score indicates a higher level of acoustical match than any of said plurality of acoustical scores.

10.-16. (Cancelled)

17. (Currently Amended) A feedback method for providing feedback for unrecognized speech comprising:

receiving a speech command as spoken by a user; and
comparing the user's speech command to a plurality of recognized speech commands available in a speech library according to acoustical scores that indicate a level of acoustical match between the user's speech command and the respective recognized speech commands to determine if the user's speech command is recognized speech corresponding to an acoustical score above a first threshold value, unrecognized speech corresponding to an acoustical score below the first threshold value and above a second threshold value, or non-speech corresponding to an acoustical score below the second threshold value; and

generating a generic response and providing it to the user if it is determined that the user's speech command is unrecognized speech.

18. (Cancelled)

19. (Original) The feedback method of claim 17 wherein said comparing the user's speech command includes performing an acoustical analysis of the user's speech command and generating a user speech acoustical model for the user's speech command.

20. (Original) The feedback method of claim 19 wherein said comparing the user's speech command further includes performing an acoustical analysis of each of the plurality of recognized speech commands and generating a recognized speech acoustical model for each recognized speech command, thus generating a plurality of recognized speech acoustical models.

21. (Previously Presented) The feedback method of claim 20 wherein said comparing the user's speech command further includes comparing the user speech acoustical model to each of the recognized speech acoustical models, thus defining the plurality of acoustical scores which relate to the user's speech command, one score for each comparison performed.

22. (Previously Presented) The feedback method of claim 21 wherein said comparing the user's speech command further includes determining the first and second threshold values defining an acceptable range of acoustical scores indicative of unrecognizable speech, wherein the user's speech command is defined as unrecognized speech if the acoustical score, chosen from the plurality of acoustical scores, which indicates the highest level of acoustical match falls within the acceptable range of acoustical scores.

23. (Original) The feedback method of claim 21 wherein the plurality of recognized speech commands includes an unrecognized speech entry, wherein said comparing the user's speech command further includes:

performing an acoustical analysis on the unrecognized speech entry to generate an unrecognized speech acoustical model; and

comparing the user speech acoustical model to the unrecognized speech acoustical model to define an unrecognized speech acoustical score;

wherein the user's speech command is defined as unrecognized speech if the unrecognized speech acoustical score indicates a higher level of acoustical match than any of the plurality of acoustical scores.

24. (Previously Presented) A computer program product residing on a computer readable medium having a plurality of instructions stored thereon which, when executed by the processor, cause that processor to:

receive a speech command as spoken by a user;

compare the user's speech command to a plurality of recognized speech commands available in a speech library according to acoustical scores that indicate a level of acoustical match between the user's speech command and the respective recognized speech commands to determine if the user's speech command is recognized speech corresponding to an acoustical score above a first threshold value, unrecognized speech corresponding to an acoustical score below the first threshold value and above a second threshold value, or non-speech corresponding to an acoustical score below the second threshold value; and

generate a generic response and provide it to the user if it is determined that the user's speech command is unrecognized speech.

25. (Original) The computer program product of claim 24 wherein said computer readable medium is a random access memory (RAM).

26. (Original) The computer program product of claim 24 wherein said computer readable medium is a read only memory (ROM).

27. (Original) The computer program product of claim 24 wherein said computer readable medium is a hard disk drive.

28. (Previously Presented) A processor and memory configured to:

receive a speech command as spoken by a user;

compare the user's speech command to a plurality of recognized speech commands available in a speech library according to acoustical scores that indicate a level of acoustical match between the user's speech command and the respective recognized speech commands to determine if the user's speech command is recognized speech corresponding to an acoustical score above a first threshold value, unrecognized speech corresponding to an acoustical score below the first threshold value and above a second threshold value, or non-speech corresponding to an acoustical score below the second threshold value; and

generate a generic response and provide it to the user if it is determined that the user's speech command is unrecognized speech.

29. (Original) The processor and memory of claim 28 wherein said processor and memory are incorporated into a wireless communication device.

30. (Original) The processor and memory of claim 28 wherein said processor and memory are incorporated into a cellular phone.

31. (Original) The processor and memory of claim 28 wherein said processor and memory are incorporated into a personal digital assistant.

32. (Original) The processor and memory of claim 28 wherein said processor and memory are incorporated into a palmtop computer.

33. (Original) The processor and memory of claim 28 wherein said processor and memory are incorporated into a child's toy.

34. (Currently Amended) A method comprising:

accepting data representing an audio signal;

using speech models according to acoustical scores that indicate a level of acoustical match between the audio signal and respective speech commands to identify the audio signal as belonging to one of three or more categories including

- (a) recognized speech corresponding to an acoustical score above a first threshold value,
- (b) unrecognized speech corresponding to an acoustical score below the first threshold value and above a second threshold value, and
- (c) non-speech corresponding to an acoustical score below the second threshold value; and

generating a generic response and providing it to a user if the audio signal is identified as belonging to the category of unrecognized speech.

35. (Previously Presented) The method of claim 34 further comprising providing feedback according to the category identified for the audio signal.

36. (Previously Presented) The method of claim 34 wherein the category of non-speech includes background noise.

37. (Previously Presented) The method of claim 34 wherein the category of non-speech includes background speech.

38. (Previously Presented) The method of claim 34 wherein the category of recognized speech is identified when the audio signal is unambiguously recognized.

39. (Previously Presented) The method of claim 34 wherein identifying the category of the audio signal includes determining one of the acoustical scores that corresponds to the highest

level of acoustical match of the audio signal with the speech models and identifying the category according to the determined acoustical score.